

MIXIT TLA

Thermal Lightweight Aggregate Screed

MIXIT TLA is a thermal lightweight aggregate screed which is easy to place, level and finish. MIXIT TLA is based on 85% EPS (expanded polystyrene) beads, water and cement. Each EPS bead is coated at the production stage with an EIA additive. This coating produces a homogenous distribution of beads within screed.

Benefits of MIXIT TLA:

Traditional rigid board insulation replacement:

MIXIT TLA is suitable for use in all floor constructions

Ideal for floors with multiple conduits/pipes for electrical, water & gas.

MIXIT TLA is installed in a single layer which replaces multiple build-ups of traditional insulation.

Single layer MIXIT TLA has no gaps in insulation layer & requires no joint sealing.



Surface regularity of slab:

Rigid insulation boards often rock between high/low points when installed on uneven floors and may fail due to voids below. MIXIT TLA takes up any unevenness of the floor and provides a level surface to install underfloor heating.

Reduced Material Waste:

No insulation off-cuts (waste) to be disposed of which end up in landfill.

MIXIT TLA does not require the use of polythene between thermally efficient screed and liquid flowing cementitious screed.

Rapid Curing:

Curing is 10x faster than traditional screeds allowing trafficking and floor finishes to be applied much earlier.

Walk on the floor after 24 hours (48 in winter). MIXIT TLA cures at a rate of 10mm thickness per day.

Speed of Construction:

1m³ at 50mm thick yields 20m² which can be pumped and placed in under 5 minutes.

Product Accreditation and Environmental Credentials:

Testing of expanded virgin graphite EPS beads mixed with EIA additive is done in accordance with BS EN 16025 'Thermal and/or sound insulating products in building construction.

Bound EPS ballastings'.

BREEAM Responsible Sourcing: EPS beads are manufactured in ISO 9001, 14001 & OHAS 18001 accredited manufacturing facilities. MIXIT TLA is produced in our readymix plants which are ISO 9001 and ISO 14001 BSI certified.

BRE Green Guide to Specification: MIXIT TLA is 85% EPS (expanded polystyrene) which achieves an A+ rating.

MIXIT TLA has no nutrient value to insects or vermin and will not sustain mould growth or bacteria. It is non-toxic, non-biodegradable, rotproof and dimensionally stable over time.

Thermal Performance of TLA and Technical Data:

MIXIT TLA U-values:

TLA Screed Thickness mm	P/A ratio			
	0.20	0.4	0.6	0.8
150mm	0.15	0.18	0.20	0.21
175mm	0.13	0.16	0.18	0.19
200mm	0.12	0.15	0.16	0.17
225mm	0.11	0.14	0.15	0.15
250mm	0.11	0.13	0.14	0.14
275mm	0.10	0.12	0.13	0.13

Above figures calculated in accordance with BS 6946 and assume 300mm wall thickness, no edge insulation, 50mm finishing screed and 100mm concrete subfloor.

MIXIT TLA Technical Data (declared performance characteristics to BS EN 16025):

Cement Dosage Kg/m ³ (absolute technical characteristics)	110	200	250	300
Density (28 days) kg/m ³	130	215	265	315
Thermal Conductivity (W/mK)	0.043	0.065	0.067	0.080
Compressive Strength N/mm ²	0.528	0.69	0.83	1.61
Flexural Strength N/mm ²	0.12	0.37	0.46	0.95
Cohesion kPa	-	82.62	82.62	127.17
Elasticity Module N/mm ²	-	235.30	n.d.	489.50
Permeability to water vapour μ	-	10.11	11.50	12.00
Shrinkage (NBN) mm/m	-	0.427	n.d.	0.35
Specific heat kj/kgK	1.40	1.40	1.40	1.40
Impact sound reduction ØL at 500Hz	n.d.	n.d.	14db (5cm thick)	-
Impact sound pressure level			61db (11cm thick)	
Fire reactivity class	A2 UNI EN 13501-1			
Smoke production class	s1 UNI EN 13501-1			
Observation of drops or inflamed particles	d0 UNI EN 13501-1			